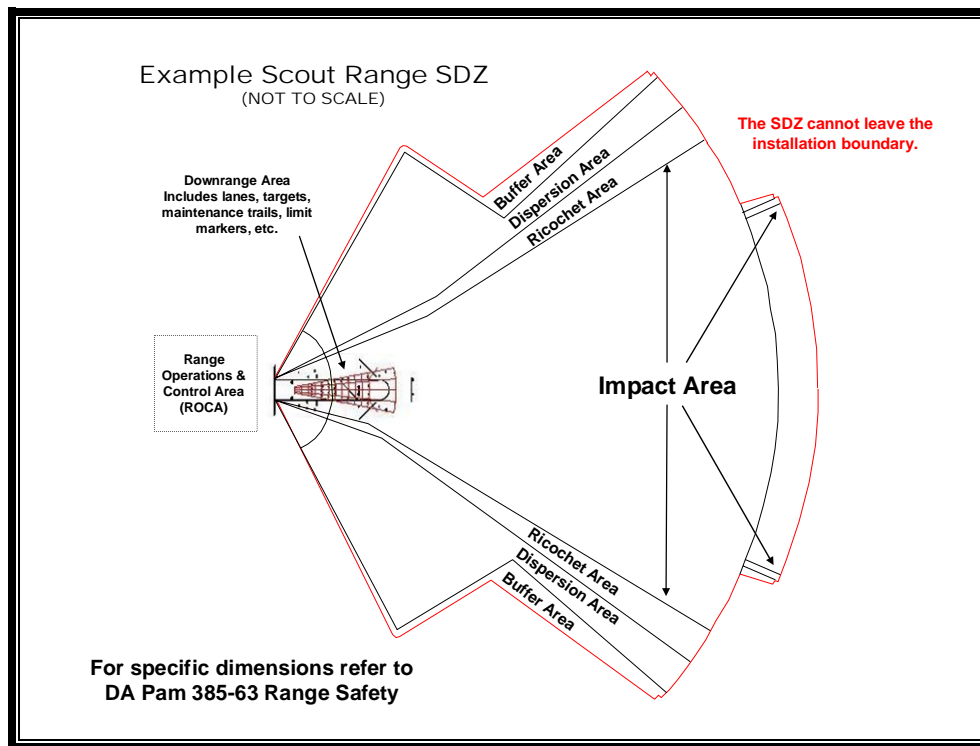


## SCOUT RANGE SURFACE DANGER ZONES (SDZ)



Definition, Per DA PAM 385-63: The ground and airspace designated within the training complex (to include associated safety areas) for vertical and lateral containment of projectiles, fragments, debris, and components resulting from the firing, launching, or detonation of weapon systems to include explosives and demolitions.

The Surface Danger Zone (SDZ) is a depiction of the mathematically predicted area a projectile will return to earth either by direct fire or ricochet. The SDZ is the area extending from a firing point to a distance downrange based on the projectiles fired. This area has specific dimensions that provide a contained area for all fragments resulting from the caliber of weapons fired. These dimensions are found in DA PAM 385-63.

While this area is not considered part of the range design, it is one of the deciding factors considered when determining the location of the range and the orientation of its lanes and targets. Typically, a composite SDZ is generated to encompass all firing points resulting from the firing of several different caliber weapons. It encompasses all weapons within the largest SDZ footprint. No part of the SDZ may leave the installation property. SDZs of different ranges may overlap, but no SDZ can be located on a part of another range where soldiers are training, unless an adjusted SDZ is authorized by the installation. See the Deviation Authorization paragraph.

General: The Scout Ranges target array extends from the baseline of the range to approximately 2100m downrange. The example SDZ for the Scout Range is a composite created from the SDZs of the BFV cannon, vehicle mounted machine guns, and anti-armor missiles. It is also a composite of the dual capabilities of the Scout Range; scout vehicle gunnery qualification and 4 lanes of Multi-Purpose Machine Gun.

To allow for maximum training value, the example SDZ for the Scout Range is calculated from the first firing positions of the left and right firing trails to the last firing positions of the left and right firing trails and allows for all targets to be engaged. The SDZ encompasses all firing points and maneuver boxes within the range. The SDZ extends from a firing point to:

- 6,404 meters for 25mm M910 TPCSDS-T
- 6,047 meters for 25mm M793 TP-T
- 5,000 meters for Inert TOW missiles
- 6,500 meters for .50cal M2 Ball
- 4,100 meters for 7.62mm M80 Ball
- 2,095 meters for 40mm Mk-19 M918 TP

Use the entire length of the maneuver box in calculating SDZs for offensive engagements.

The installation has the choice of developing a single composite SDZ for all the Scout Ranges capabilities or several SDZs based on which weapon systems on which part of the range are being used.

Note: The SDZ depicted is an example only. The facility diagram is a generic layout from TC 25-8. The SDZ will differ from an actual SDZ based on a constructed facility.

Note: For proper handling, transportation, and storage of ammunitions and explosives please refer to DA Pam 385-64 Ammunition and Explosives Safety Standards.

Deviation Authorization: In some circumstances, installations may wish to pursue a deviation to particular SDZ criteria. In these cases, an installation will use an adjusted SDZ. Deviation Authorization is solely an installation decision and is based on having a certain mitigating factor, such as a mountain to block projectile travel.